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### **REMARKS**

This communication is intended as a full and complete response to the Office Action issued May 22, 2006. In view of the following discussion, the Applicants submit that none of the claims now pending in the application are obvious under the provisions of 35 U.S.C. § 103. Thus, the Applicants believe that all of these claims are in allowable form.

#### **I. REJECTION OF CLAIMS 1-6, 9-20 AND 34 UNDER 35 U.S.C. §103**

##### **A. Claims 1-4, 6 and 9-20**

Claims 1-4, 6 and 9-20 stand rejected as being made obvious by the Lathrop patent (United States Patent No. 5,701,427, issued December 23, 1997, hereinafter "Lathrop") in view of the Barker et al. patent (United States Patent No. 5,931,916, issued August 3, 1999, hereinafter "Barker"). In response, the Applicants have amended claims 1, 9, 14 and 18, from which claims 2-4, 6, 10-13, 15-17 and 19-20 depend, in order to more clearly recite aspects of the present invention.

In particular, the Examiner's attention is directed to the fact that neither Lathrop nor Barker teaches, shows or suggests the novel invention of re-attempting to send, by a server in a client/server object-based computing system, a packet of data including data that represents an object in the system to a client in the system, where the object includes data and functionality, as claimed by the Applicants.

By contrast, both Lathrop and Barker teach general information transfer. Nowhere in Lathrop or Barker does it teach that a transmitted packet of data includes data which represents an object in a client/server object-based computing system, as positively claimed by the Applicants' invention. The Examiner asserts that this limitation simply means "data or information or item in a message in a client/server architecture" in the Office Action dated May 22, 2006 (See Page 3, line 13). However, contrary to the Examiner's assertion, the Applicants respectfully submit that an object in an object-based computing system is not the same as general "data or information". Objects, as understood in the field of object-oriented computing systems and as specified by the Applicants' specification "are generally programming units which include data and functionality, and are instances of classes". (See Applicants' specification, pg. 10, II. 26-

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28, emphasis added). Both Lathrop and Barker teach the transmission of general data, but neither teaches the transmission of objects that include functionality (e.g., methods that operate on data) in addition to data.

Notably, Applicants' claims positively recite the step of re-attempting to send, by a server in a client/server object-based computing system, a packet of data including data that represents an object in the system to a client in the system, where the object includes data and functionality. Specifically, Applicants' independent claims 1, 9, 14 and 18, as amended, recite:

1. A method for transmitting a packet of data from a first computing system to a second computing system, the first computing system and the second computing system being included in a client/server object-based computing system, wherein the first computing system is a server and the second computing system is a client, the method comprising:

identifying the packet of data using the first computing system, wherein said second computing system is listening, wherein the packet of data includes data which represents an object in the client/server object-based computing system, the object being identified as an object for which the second computing system has an interest in receiving updates, the object including data and functionality;

attempting to send the packet of data from the first computing system to the second computing system;

determining when the packet of data is received by the second computing system; and

sending an acknowledgment from the second computing system to the first computing system when it is determined that the packet of data is received by the second computing system, the acknowledgement being arranged to indicate that the packet of data is received by the second computing system. (Emphasis added)

14. A computer program product for transmitting a packet of data from a first computing system to a second computing system, the first computing system and the second computing system being included in a client/server object-based computing system, wherein the first computing system is a server and the second computing system is a client, the computer program product comprising:

computer code for identifying the packet of data using the first computing system, wherein said second computing system is listening, wherein the packet of data includes data which represents an object in the client/server object-based computing system, the object being identified as an object for which the second computing system has an interest in receiving updates, the object including data and functionality;

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computer code for attempting to send the packet of data from the first computing system to the second computing system;  
computer code for determining when the packet of data is received by the second computing system;  
computer code for sending an acknowledgment from the second computing system to the first computing system when it is determined that the packet of data is received by the second computing system, the acknowledgement being arranged to indicate that the packet of data is received by the second computing system; and  
a computer readable medium that stores the computer codes. (Emphasis added)

9. A method for transmitting a packet of data from a first computing system to a second computing system, the first computing system and the second computing system being included in a client/server object-based computing system, wherein the first computing system is a server and the second computing system is a client, the method comprising:

a) attempting to send the packet of data from the first computing system to the second computing system, wherein said second computing system is listening, wherein the packet of data includes data which represents an object in the client/server object-based computing system, the object being identified as an object for which the second computing system has an interest in receiving updates, the object including data and functionality;

b) determining when the packet of data is received by the second computing system;

c) identifying the packet of data as being successfully sent when it is determined that the packet of data is received by the second computing system; and

d) assuming that packet losses have occurred when it is determined that the packet of data is not received by the second computing system, wherein assuming that packet losses have occurred includes repeating a) and b) for up to a predetermined maximum number of times. (Emphasis added)

18. A computer program product for transmitting a packet of data from a first computing system to a second computing system, the first computing system and the second computing system being included in a client/server object-based computing system, wherein the first computing system is a server and the second computing system is a client, the computer program product comprising:

computer code for attempting to send the packet of data from the first computing system to the second computing system, wherein said second computing system is listening, wherein the packet of data includes data which represents an object in the client/server object-based computing system, the object being identified as an object for which the second computing system has an interest in receiving updates, the object including data and functionality;

computer code for determining when the packet of data is received by the second computing system;

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computer code for identifying the packet of data as being successfully sent when it is determined that the packet of data is received by the second computing system;

computer code for assuming that packet losses have occurred when it is determined that the packet of data is not received by the second computing system, wherein assuming that packet losses have occurred includes computer code for re-attempting to send the packet of data from the first computing system to the second computing system and computer code for determining when the re-attempt to send the packet of data is successful for up to a predetermined maximum number of times; and

a computer readable medium that stores the computer codes. (Emphasis added)

As discussed above, Lathrop and Barker, singly and in any permissible combination, fail to teach or suggest both the transmission of objects (in an object-oriented computing system), where the objects include data and functionality, as claimed by the Applicants. Therefore, the Applicants respectfully submit that independent claims 1, 9, 14 and 18, as amended, fully satisfy the requirements of 35 U.S.C. §103 and are patentable thereunder.

Dependent claims 2-4, 6, 10-13, 15-17 and 19-20 depend, either directly or indirectly, from claims 1, 9, 14 and 18 and recite additional features. As such, and for at least the same reasons set forth above, the Applicants submit that claims 2-4, 6, 10-13, 15-17 and 19-20 are also not made obvious by the teachings of Lathrop in view of Barker. Therefore, the Applicants submit that dependent claims 2-4, 6, 10-13, 15-17 and 19-20 also fully satisfy the requirements of 35 U.S.C. §103 and are patentable thereunder. Accordingly, the Applicants respectfully request that the rejection of claims 1-4, 6 and 9-20 under 35 U.S.C. § 103 be withdrawn.

**B. Claim 5**

Claim 5 stands rejected as being made obvious by Lathrop in view of Barker and further in view of the Whalen et al. patent (United States Patent No. 5,948,066, issued September 7, 1999, hereinafter "Whalen"). In response, the Applicants have amended independent claim 1, from which claim 5 depends, in order to more clearly recite aspects of the present invention.

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In particular, the Examiner's attention is directed to the fact that Whalen, like Lathrop and Barker, fails to teach, show or suggest the novel invention of re-attempting to send, by a server in a client/server object-based computing system, a packet of data including data that represents an object in the system to a client in the system, where the object includes data and functionality, as claimed by the Applicants. Therefore, Whalen does not bridge the gap in the teachings of Lathrop and Barker with respect to claim 1. Accordingly claim 1 is not made obvious by the teachings of Lathrop in view of Barker and further in view of Whalen.

Claim 5 depends directly from claim 1 and recites additional features therefor. As such, and for at least the same reasons set forth above, the Applicants submit that claim 5 is also not made obvious by the teachings of Lathrop in view of Barker and further in view of Whalen. Therefore, the Applicants submit that dependent claim 5 also fully satisfies the requirements of 35 U.S.C. §103 and is patentable thereunder. Accordingly, the Applicants respectfully request that the rejection of claim 5 under 35 U.S.C. § 103 be withdrawn.

**C. Claim 34**

Claim 34 stands rejected as being made obvious by Lathrop in view of Barker and further in view of the Herz, et al. patent (United States Patent No. 5,835,087, issued on November 10, 1998, hereinafter "Herz"). In response, the Applicants have amended claim 34 in order to more clearly recite aspects of the present invention.

Specifically, claim 34, as amended, recites:

34. A method for transmitting a packet of data from a first computing system to a second computing system, the first computing system and the second computing system being included in a client/server object-based computing system, wherein the first computing system is a server and the second computing system is a client, the method comprising:

Identifying the packet of data using the first computing system, wherein said second computing system is listening, wherein the packet of data includes data which represents an object in the client/server object-based computing system, the object being represented in an object list in the first computing system, the object list arranged to include objects that are to be updated, and the object also being represented in a filter tree which is arranged to identify objects that the second computing system has an interest in, the object including data and functionality;

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attempting to send the packet of data from the first computing system to the second computing system;  
determining when the packet of data is received by the second computing system; and  
sending an acknowledgment from the second computing system to the first computing system when it is determined that the packet of data is received by the second computing system, the acknowledgment being arranged to indicate that the packet of data is received by the second computing system. (Emphasis added)

The Examiner's attention is directed to the fact that Herz, like Lathrop and Barker, fails to teach, show or suggest the novel invention of re-attempting to send, by a server in a client/server object-based computing system, a packet of data including data that represents an object in the system to a client in the system, where the object includes data and functionality, as claimed by the Applicants in claim 34. As such, and for at least the same reasons set forth above, the Applicants submit that claim 34 is not made obvious by the teachings of Lathrop in view of Barker and further in view of Herz. Therefore, the Applicants submit that dependent claim 34 also fully satisfies the requirements of 35 U.S.C. §103 and is patentable thereunder. Accordingly, the Applicants respectfully request that the rejection of claim 34 under 35 U.S.C. § 103 be withdrawn.

## **II. INFORMATION DISCLOSURE STATEMENT**

The Applicants will shortly be submitting an information disclosure statement. The Examiner is respectfully urged to consider the references cited in this information disclosure statement in connection with any response to this amendment.

## **III. CONCLUSION**

Thus, the Applicants submit that all of the presented claims fully satisfy the requirements of 35 U.S.C. §103. Consequently, the Applicants believe that all these claims are presently in condition for allowance. Accordingly, both reconsideration of this application and its swift passage to issue are earnestly solicited.


If, however, the Examiner believes that there are any unresolved issues requiring the issuance of a final action in any of the claims now pending in the application, it is

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requested that the Examiner telephone Mr. Kin-Wah Tong, Esq. at (732) 530-9404 so that appropriate arrangements can be made for resolving such issues as expeditiously as possible.

Respectfully submitted,

8/22/06

  
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